S
799
F2e9

Montana State Library
3 0864 1006 8907 7

STATE DOCUMENTS

ENVIRONMENTAL IMPACT STATEMENT

DRAFT

MAY 18 1973

Pursuant to: Montana Environmental Policy Act
Section 69-6504 (b)(3)

Project No. FG- 9

South Sandstone Waterspreading and Recreation Group
Fallon County, Montana

March 15, 1972

Prepared by

Montana Fish and Game Department
and
U.S. Soil Conservation Service

MONTANA FISH AND GAME COMMISSION
AND
U.S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

ENVIRONMENTAL STATEMENT (X) DRAFT ( ) FINAL

FOR
SOUTH SANDSTONE WATERSPREADING AND RECREATION GROUP
FALLON COUNTY, MONTANA

DATE: February, 1972

NATURE OF ACTION:

This is a group project to be carried out by the sponsoring local organizations with Federal assistance from the Rural Environmental Assistance Program and Great Plains Conservation Program (P.L. 1021) and State assistance from Montana Fish and Game Commission with cost-sharing from Bureau of Outdoor Recreation. Project measures include: (1) multi-purpose diversion and recreation reservoir; (2) recreational facilities; (3) diversion canal; and (4) waterspreading systems. See attached project map.

The objectives of the project are to: (1) provide water for beneficial use through waterspreading; (2) provide additional recreational opportunities; (3) reduce sediment to downstream areas; and (4) improve the overall quality of the environment.

Total average annual benefits from installation of the project are estimated at $44,280. Total average annual costs are estimated at $22,752. Project benefits and costs are evaluated over a 50 year period. Amortization of costs is based on an interest rate of 7%. Benefit: Cost ratio is 1.9 to 1.0.

As soon as possible, following construction, disturbed areas will be seeded to a recommended grass mixture to reduce erosion and sedimentation. Pollution abatement practices may be required during construction.

The installation of the project will require the commitment of 440 acres for dam, reservoir, diversion canal and recreational facilities. These land use changes will involve about 90 acres of cropland and 350 acres of hayland, pasture and range. The waterspreading system will involve over 600 acres of pasture, hayland and cropland. The cropland will be converted to hayland and pasture.

ENVIRONMENTAL SETTING:

The watershed contains 48 square miles of drainage area. The area has an average annual precipitation of about 13 inches, 80% of which falls during the growing season. Anticipated yield from this watershed is 20 to 30 acre feet per square mile annually. Land use in the watershed consists of 75% rangeland and 25% cropland. There are 14 cooperators with the Little Beaver Conservation District within the watershed area. Fifty-seven percent of the area, or nine units, are under conservation farm plans and 29 percent, or five units, are under agreement for plans. Estimated time for completing conservation plans is approximately 3 years. Land treatment needs are required on 54 percent of the watershed. These needs include proper range use, stockwater developments, stubble mulching, stripcropping and grassed waterways.

The watershed has an elevation difference of approximately 500 feet from the divide near Willard, Montana to the dam site about six miles south of Plevna, Montana. It is approximately ten miles in length and five miles in width. The watershed is gently rolling upland located in the tertiary aged Fort Union formation. South Sandstone Creek is an intermittent stream, which is tributary to O'Fallon Creek, which is tributary to Yellowstone River. There is little or no fisheries value presently in South Sandstone Creek.

The project is located in the central portion of Fallon County, Montana. Plevna has a population of 189 and is located about 13 miles east of Baker, Montana on Highway #12. Baker, the county seat of Fallon County, has a population of 2584. The principle trade community for this area, Miles City, Montana, lies about 62 miles east of Plevna. Miles City, with a population of 9023, is the county seat of Custer County and principle trade area of the five counties in southeast Montana.

Plains type agriculture is the primary source of income for the area, with oil production bringing in additional income. Diversified farming and ranching is the major type of agricultural enterprise in the area with little or no irrigation. Those units having a livestock enterprise, must provide a feeding operation for at least three months to balance their grazing operation for the remainder of the year due to climatic conditions. The dryland farming operations include small grain, pasture and hay.

Land values in the area range from $25 to $35 per acre for rangeland and $75 to $125 per acre for cropland.

Ten land users will derive benefits through waterspreading from this project. All are members of the Little Beaver Conservation District and will have contracts under the Great Plains Conservation Program. There will be 22,448 acres under contract.

The principle physical resources in the watershed are soil and water. Nearest significant water-based recreational opportunities are at the Tongue River Reservoir near the Montana-Wyoming line and Fort Peck Reservoir. Wildlife in the area include many species of song birds, migratory water fowl, upland game birds and various game animals. Hunting opportunities are provided by gray partridge, ring-necked pheasants, sage and sharp-tailed grouse, ducks, geese, deer and antelope. The few fishing opportunities within the county are in small farm ponds. Water-based recreational needs within the area are estimated at 23,700 annual days.

The major water resource problem in the area is controlling runoff and converting it to a beneficial use.

Soils along South Sandstone Creek are productive and well suited for water-spreading. With proper water management, no salinity problems will arise.

An abandoned farmstead lies within the recreational development area. This includes a 50 year old, two-story frame house in fair condition; a garage in fair-to-good condition with concrete floor and overhead door; a barn in poor condition; and three other small frame buildings in poor condition. The house has not been occupied in the last five years. Considerable repairs would be required for human occupancy. A well is located near the buildings.

No archeological or historical sites in the reservoir and dam area are known to exist.

STATEMENT:

1. Environmental impact of proposed action:

   This project, as proposed, would provide a water-based recreational facility and waterspreading development that is much needed in this area. It will make beneficial use of runoff water that normally carries sediment and occasionally causes flooding downstream. The water will be used to increase permanent vegetative cover that will provide a needed feed base for the participating ranch units. This not only enables these units to better balance their feed and grazing base, but also assists in proper grazing use of their rangeland. Existing water rights will not be infringed upon.

   The waterspreading development will benefit neighboring ranchers as well as the group. Additional feed may be raised for sale to neighbors. Additional equipment and supplies will have to be purchased to carry out the operations.

   Recreational facilities at the multi-purpose reservoir are planned in conjunction with the 97 surface acre recreational lake. This development will lessen part of the heavy recreational pressure on nearby ponds. An estimated 7,410 visitor days use are anticipated for the facilities of which 4,860 are fisherman days on an annual basis.

The Montana Fish and Game Department will manage the fishery of the multi-purpose reservoir. The sanitary facilities in the recreation area will use a vault for storage of waste. Increased waterfowl use is expected. Denser vegetation from the waterspreading system should provide better cover for small game and birds. Some natural wildlife habitat, pasture and grazing land will be lost by innundation.

The estimated sediment yield from the watershed is low. The multi-purpose structure will store a 50 year sediment accumulation. Thereafter, it will continue to provide limited recreation use.

The application of land treatment in the benefited area and the structural measures will improve the overall quality of the local environment.

The unoccupied farm building located near the multi-purpose dam need not be removed for construction reasons but may be encroached upon by high water.

Land acquisition for the reservoir and recreational development will be by fee title purchase or long-term easement. The two land owners affected by this land acquisition are members of the Group. Land acquisition for the diversion canal will be by long-term easement from members of the Group.

2. Favorable Environmental Effects:

   a. Sediment washed into the Yellowstone River will be reduced by reservoir entrapment during the life of the project.

   b. Water quality will be improved by reduced sedimentation.

c. The multi-purpose reservoir will provide 7,410 annual recreational visits including 4,860 fisherman days.

d. Waterfowl use will increase.

e. The waterspreading development will improve some types of wildlife habitat.

f. Surplus feed may furnish a cash crop.

g. Local businesses benefit from expenditures of ranchers and recreationists.

h. Construction work will bring temporary benefits to the community.

i. Waterspreading systems will provide better feed-grazing management for the 10 operating units.

j. Waterspreading developments create beneficial use of floodwater.

k. Existing roads, within the area, will be improved and maintained, due to increased use.

l. Extensive mud flats within the recreational reservoir are not anticipated because floodwaters will be used as available rather than from storage.

3. Adverse Environmental Effects Which Cannot be Avoided:

a. Innundation of 97 acres of range, pasture and wildlife habitat.

b. Removal of 343 acres from agricultural production because of land use change to dam, spillway, diversion canal and recreational development.

c. Diversion canal will separate fields of pasture and hayland.

4. Alternatives to the Proposed Action:

Individual waterspreading systems can be developed for this group. These require either a direct diversion structure or a pumping station to apply runoff water to the land. These are expensive for one individual to install and usually do not provide enough benefits to become economically feasible.

A site for a single purpose diversion structure for waterspreading exists upstream from the proposed multi-purpose structure. This was examined, and determined not economically feasible.

Another multi-purpose site is located just below the proposed site. It would involve routing the county road across the top of the structure. Because of having to bridge the concrete chute spillway, widen the top width of the dam and install guard rails, this site was not approved by the local group.

Operating units needing a feed base could purchase hay elsewhere. Quite often, this hay is unavailable and of low quality. This expense would reduce the profit from their enterprises and most units would tend to exist with what they have. Units operating in this manner tend to over-graze pasture and range resulting in soil erosion problems.

Another alternative would be to continue with the limited water-based recreation and shortage of feed production.

5. Relationship between local Short-term Uses of Man's Environment and the Maintenance and Enhancement of Long-term Productivity:

Land in the project is largely devoted to agricultural production and is expected to remain essentially in this use. This project will strengthen the operating units, thus preserving the agriculture program in generations to come. The development of waterspreading systems will also permit a choice in future crop use. The recreational benefits will assist in meeting the demands in years to come. After the 50-year life, the project will still provide waterspreading and reduced recreational benefits.

6. Irreversible and Irretrievable Commitments of Resources:

An estimated 440 acres of land is committed to change in land use from range, pasture, hay and cropland. It will be used for multi-purpose dam, spillway, reservoir, recreational facilities and diversion canal. Water for the waterspreading development will be diverted from the water course as well as impounded for the recreational development. This water will be required throughout the project life. No other known permanent commitment of resources is required of this project.

Consultation with appropriate Federal Agencies:

This environmental statement was prepared in consultation with local representatives of the Montana Fish and Game Department and Soil Conservation Service.

Comments have been requested from the following Federal and State Agencies:

Montana State Clearing House (Dept. of Planning and Economic Development)

Department of Anthropology, University of Montana

Montana State Department of Natural Resources

Montana State Environmental Quality Council

Bureau of Outdoor Recreation

Fallon County Commissioners

Baker Chamber of Commerce

Baker Sportsmen's Club

U. S. Soil Conservation Service

Custer County Rod and Gun Club

Office of the Governor

District 7, Montana Fish and Game Department

Information and Education Division, Montana Fish and Game Department

Student Environmental Research Center, University of Montana

R 57 E
R 58 E
CHICAGO, MILWAUKEE, ST. PAUL AND PACIFIC R.R.
TO MILES CITY
SANDSTONE CREEK
ELENDA
36
31
1
6
US #12
T8N
T7N
SOUTH SANDSTONE CREEK
PROJECT MAP
SOUTH SANDSTONE GROUP
WATERSPREADING AND
RECREATION PROJECT
FALLON COUNTY, MONTANA
PAVED HIGHWAY
IMPROVED SECONDARY ROAD
ALL WEATHER ROAD
DIRT ROAD
RAILROAD
WATERSPREADING DEVELOPMENT
DIVERSION CANAL
MULTI-PURPOSE RESERVOIR
SOUTH SANDSTONE CREEK
T7N
T6N
N
SOIL CONSERVATION SERVICE
U.S. DEPARTMENT of AGRICULTURE
SCALE: 1" = 1 MILE